



**NEPAL**

**BARDIYA**

---

**NDPBA SUBNATIONAL PROFILE**

# NEPAL

## BARDIYA

Area: 2,025 km<sup>2</sup>



### RISK AND VULNERABILITY COMPONENT SCORE



**MULTI-HAZARD RISK (MHR) - High**  
Score: 0.580 • Rank: 23/77



**RESILIENCE (R) - High**  
Score: 0.537 • Rank: 26/77



**MULTI-HAZARD EXPOSURE (MHE) - Very High**  
Score: 0.815 • Rank: 6/77



**VULNERABILITY (V) - Low**  
Score: 0.385 • Rank: 56/77



**COPING CAPACITY (CC) - Moderate**  
Score: 0.460 • Rank: 30/77



Population (2021 Statistical Yearbook)  
**460,831**



Infant Mortality Rate (per 1,000 live births)  
**58.1**



Population below Poverty Line  
**28.7%**



Population with Safe Drinking Water  
**98.1%**



Adult Literacy  
**56.5%**



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 6 / 77 DISTRICTS

SCORE: 0.815



MHE  
0.815

Raw MHE  
0.768

Relative MHE  
0.862

### ESTIMATED EXPOSURE TO EACH HAZARD:



Earthquake

**100%**

818,331

\$697.13 Million

Critical Infrastructure Exposed:  
100%



Landslide

**0%**

2,363

\$14.38 Million

Critical Infrastructure Exposed:  
2%



Extreme Heat

**100%**

818,184

\$697.13 Million

Critical Infrastructure Exposed:  
100%



Wildfire

**50%**

411,603

\$316.57 Million

Critical Infrastructure Exposed:  
45%



Fluvial Flood

**45%**

364,282

\$423.05 Million

Critical Infrastructure Exposed:  
61%



Pluvial Flood

**44%**

357,573

\$326.87 Million

Critical Infrastructure Exposed:  
47%

NOTE: Population exposure values for Nepal districts are estimated using PDC's AIM model. Values may differ from Census population estimates.



## VULNERABILITY (V)

**RANK: 56 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.385**

Vulnerability in Bardiya is primarily driven by Information Access Vulnerability and Economic Constraints. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



### Information Access Vulnerability

0  1 **SCORE: 0.513** **RANK: 38/77 DISTRICTS ASSESSED**

<b>56.5%</b> Adult Literacy	<b>3.46</b> Mean Years of Schooling	<b>96.6</b> Primary School Net Enrollment	<b>23.83</b> Student Teacher Ratio
--------------------------------	---	--	--



### Access to Clean Water Vulnerability

0  1 **SCORE: 0.356** **RANK: 56/77 DISTRICTS ASSESSED**

<b>98.1%</b> Access to Safe Drinking Water	<b>51.3%</b> Households without Toilet	<b>34.0%</b> Water Schemes in Disrepair	<b>172.0</b> Typhoid Incidence (per 10,000)	<b>9.7</b> Cholera Incidence (per 100,000)
--	--	--	--	---



### Economic Constraints

0  1 **SCORE: 0.488** **RANK: 39/77 DISTRICTS ASSESSED**

<b>\$1,086</b> Income per Capita (PPP \$)	<b>28.7%</b> Poverty Headcount Ratio	<b>7.1%</b> Poverty Gap	<b>70.9</b> Age Dependency Ratio
---	---	----------------------------	---



### Food Insecurity

0  1 **SCORE: 0.309** **RANK: 62/77 DISTRICTS ASSESSED**

<b>19.9%</b> Food Poverty Prevalence	<b>28.6%</b> Low kcal Intake Prevalence	<b>52.9%</b> Agricultural Insufficiency Rate
--	--	---



### Gender Inequality

0  1 **SCORE: 0.232** **RANK: 61/77 DISTRICTS ASSESSED**

<b>0.30</b> Female to Male Literacy Ratio (Distance from Parity)	<b>0.01</b> Female to Male Secondary Enrollment Ratio (Distance from Parity)	<b>80.3%</b> No Female Home nor Land Ownership
--	--	--



## VULNERABILITY (V)

**RANK: 56 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.385**

Vulnerability in Bardiya is primarily driven by Information Access Vulnerability and Economic Constraints. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



## Vulnerable Health Status

0  1 **SCORE: 0.414** **RANK: 33/77 DISTRICTS ASSESSED**

**64.6**  
 Life Expectancy

**1.9%**  
 Disabled Population



## Child Health

0  1 **SCORE: 0.456** **RANK: 33/77 DISTRICTS ASSESSED**

**50.6%**  
 Child Malnutrition Rate

**58.1**  
 Infant Mortality Rate (per 1,000 live births)

**724.6**  
 Child ARI Incidence (per 1,000)

**36.4**  
 Child Diarrhea Incidence (per 100)

**42.5**  
 Child Pneumonia Incidence (per 1,000)



## COPING CAPACITY (CC)

**RANK: 30 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.460**

Bardiya exhibits weaker Coping Capacity in the areas of Communications Capacity and Energy Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Coping Capacity score.



## Economic Capacity

0  1 **SCORE: 0.379** **RANK: 24/77 DISTRICTS ASSESSED**

**18,787** **100,882**  
 Gross Domestic Product (Million Rs.) Labor Productivity (Rs.)



## Governance

0  1 **SCORE: 0.379** **RANK: 61/77 DISTRICTS ASSESSED**

<b>0.1</b> Average Annual Conflict (per 10,000)	<b>6.04</b> Government Management (Score out of 9)	<b>3.96</b> Organization and Administration (Score out of 8)	<b>6.11</b> Budget and Plan Management (Score out of 11)	<b>6.18</b> Fiscal and Financial Management (Score out of 11)	<b>7</b> Service Flow (Score out of 16)	<b>4.96</b> Judicial Work (Score out of 7)	<b>4.11</b> Physical Infrastructure (Score out of 13)
<b>3.04</b> Social Inclusion (Score out of 10)	<b>3.07</b> Environmental Protection and Disaster Management (Score out of 9)	<b>1.57</b> Cooperation and Coordination (Score out of 6)					



## Environmental Capacity

0  1 **SCORE: 0.804** **RANK: 6/77 DISTRICTS ASSESSED**

**64.3%**  
Protected Area



## COPING CAPACITY (CC)

**RANK: 30 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.460**

Bardiya exhibits weaker Coping Capacity in the areas of Communications Capacity and Energy Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Coping Capacity score.



## Infrastructure Capacity

0  1 **SCORE: 0.474** **RANK: 42/77 DISTRICTS ASSESSED**



### Communications Capacity

0  1 **SCORE: 0.402** **RANK: 46/77 DISTRICTS ASSESSED**

<b>2.5%</b> Households with Landline	<b>0.5%</b> Households with Internet	<b>27.9%</b> Households with Television	<b>47.4%</b> Households with Radio	<b>61.8%</b> Households with Mobile Phone
---	---	--	---------------------------------------	--



### Logistics Capacity

0  1 **SCORE: 0.548** **RANK: 45/77 DISTRICTS ASSESSED**

<b>10</b> Road Density (km per sq. km)	<b>86.3%</b> Improved Roadway	<b>17.8</b> Average Distance to Airport (km)	<b>260.6</b> Average Distance to Dry Port (km)	<b>17.8</b> Average Distance to Warehouse (km)	<b>11.5</b> Average Distance to Police Station (km)	<b>14.4</b> Average Distance to Hospital (km)	<b>0.54</b> Operational Hospital Beds (per 10,000)
---	----------------------------------	---	---	---	--	--	---



### Energy Capacity

0  1 **SCORE: 0.473** **RANK: 42 /77 DISTRICTS ASSESSED**

<b>62.6%</b> Households with Electricity	<b>4.4%</b> Households using Gas for Cooking
---	---



## RESILIENCE (R)

RANK: 26 / 77 DISTRICTS ASSESSED

SCORE: 0.537

Bardiya's score and ranking are due to Low Vulnerability combined with Moderate Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Information Access Vulnerability



Economic Constraints



Communications Capacity



Energy Capacity

## KEY FACTORS INFLUENCING RESILIENCE



### Information Access Vulnerability

Limitations in information access can impede a population's ability to receive, understand, and take action. Emergency messages must take into account the unique information access constraints of the district. Emergency messages presented to the population must contain clear and simple information to ensure an appropriate response to save lives and reduce losses.



### Economic Constraints

Economic constraints have individual, household, community, and district-wide influence. Limitations on available financial resources reduce opportunities to invest in mitigation and preparedness measures and limit the ability to facilitate short- and long-term recovery.



### Communications Capacity

The density, diversity, resilience, and quality of communications infrastructure influence how subnational- and local-level populations are able to facilitate effective and coordinated communication.



### Energy Capacity

Homes, businesses, industry, and government all rely on access to energy resources for continuity of daily activities. Expanding, strengthening, and securing the energy network and increasing the availability and quantity of energy reserves will contribute to economic development and increase the speed of recovery processes in the aftermath of a disaster.





## HAZARD-SPECIFIC RISK (HSR)



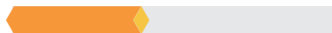
**Earthquake**

**RANK: 35 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.384**



**Extreme Heat**

**RANK: 10 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.369**



**Fluvial Flood**

**RANK: 4 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.389**



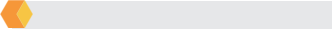
**Pluvial Flood**

**RANK: 12 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.332**



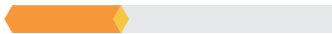
**Landslide**

**RANK: 65 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.047**



**Wildfire**

**RANK: 15 / 77 DISTRICTS ASSESSED**  
**SCORE: 0.316**





## MULTI-HAZARD RISK (MHR)

**23 / 77**

RANK WITHIN DISTRICTS  
Score: 0.580



Bardiya's score and ranking are due to Very High Multi-hazard Exposure combined with Low Vulnerability and Moderate Coping Capacity scores.

### Multi-hazard risk component scores compared to overall average country scores:

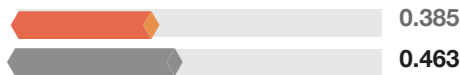
**DISTRICTS SCORE**  
**COUNTRY SCORE**



#### Multi-Hazard Exposure



#### Vulnerability



#### Coping Capacity



**Better solutions.  
Fewer disasters.**

# Safer world.

**1305 N Holocono Street  
Suite 2, Kihei, HI 96753**

**P: (808) 891-0525  
F: (808) 891-0526**



**@PDC\_Global**



**/PDCGlobal**



**www.pdc.org**



**ndpba.npl@pdc.org**